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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,552	10/01/2003	Hong-Suk Yoo	F03-298US001	9538
757	7590	02/27/2006	EXAMINER	
BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			MCPHERSON, JOHN A	
			ART UNIT	PAPER NUMBER
			1756	
DATE MAILED: 02/27/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/677,552	<b>Applicant(s)</b> YOO ET AL.	
	<b>Examiner</b> John A. McPherson	<b>Art Unit</b> 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-23, 25-29 and 32-43 is/are allowed.
- 6) ☒ Claim(s) 1-3, 12-19, 30 and 31 is/are rejected.
- 7) ☒ Claim(s) 4-11 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/1/03</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 24 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form.

Claim 24, which depends from claim 20, presents the limitation "wherein forming the mask pattern comprises printing the mask pattern onto each color filter film". However, claim 20 already requires the step of "after each color filter film is deposited, printing a mask pattern on the color film..." (lines 5-6). Therefore, claim 24 does not further limit claim 20.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 recites the limitation "the excess opaque material" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim. Claim 31 is included in this rejection only because it depends from indefinite claim 30.

This rejection could be overcome if the dependency of claim 30 was corrected from claim "27" to claim --29--.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,721,076 to Watanabe et al (Watanabe). Watanabe discloses a method of making a color filter comprising the steps of applying a colored ink comprising a specified photosensitive resin on a substrate, placing a negative on the film, (corresponding to the "forming a mask pattern on the color filter film..." step of the present invention), irradiating the assembly with an active ray of light to cure the exposed region (corresponding to the second region of the present invention), and dissolving the unexposed region (corresponding to the first region of the present invention) by a weakly alkaline aqueous solution. See the abstract; column 11, lines 42-53; and Figure 1.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,721,076 to Watanabe et al (Watanabe) in view of JP 9-318804 (JP '804).

The disclosure of Watanabe is discussed above in paragraph 3. However, Watanabe does not disclose forming the opaque matrix by transferring opaque material from the grooves of a cliché utilizing a transfer apparatus. JP '804 discloses a process of a light shielding layer on a color filter comprising the steps of shifting ultraviolet-curing ink from the recessed part of an intaglio (corresponding to the cliché of the present invention) to the surface of a blanket (corresponding to the transfer apparatus of the present invention), irradiating the ink with ultraviolet rays, and shifting the ink to the surface of the color filter substrate. See the abstracts and Figure 1. It would have been obvious to one skilled in the requisite art to form the light shielding layer by transferring ink from the recessed parts of an intaglio, as taught by JP '804, in the process of Watanabe because it is taught that forming a light shielding layer by transferring ink from the recessed parts of an intaglio utilizing a blanket enables mass production with high resolution.

#### ***Allowable Subject Matter***

5. Claims 20-23, 25-29 and 32-43 are allowed because in a method for fabricating a color filter of a liquid crystal display device comprising the steps of forming a opaque matrix on a transparent substrate; depositing a plurality of color filter films on the opaque matrix; and after each color filter film is deposited forming a mask pattern on the

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color film and removing the mask pattern and a portion of the color film to form a color filter pattern, the prior art does not teach or suggest the method wherein the mask pattern is formed by printing.

6. Claims 30 and 31 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

7. Claims 4-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John A. McPherson  
Primary Examiner  
Art Unit 1756

JAM  
2/20/06